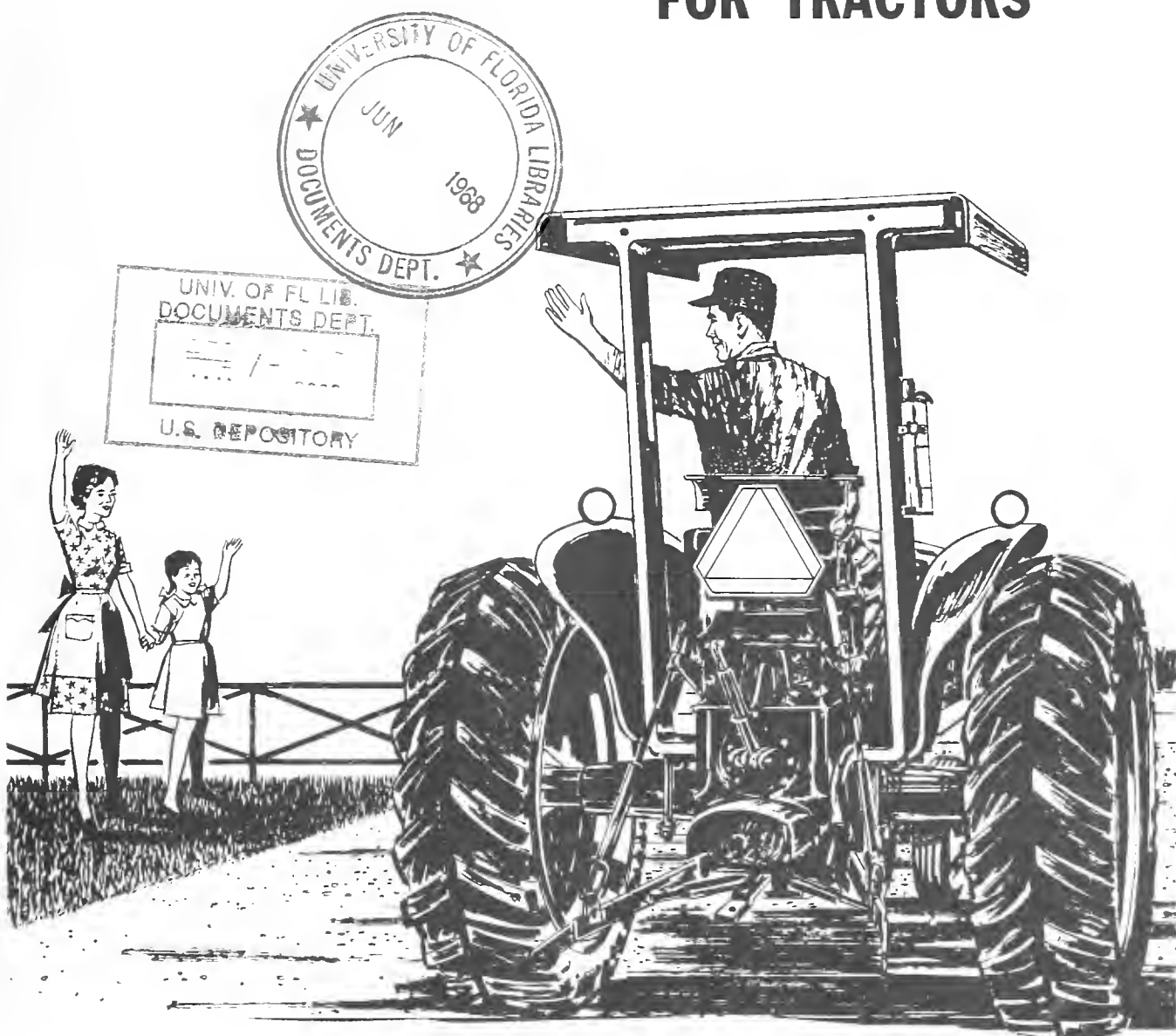


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KEEP YOUR GUARD UP!

PROTECTIVE FRAMES FOR TRACTORS



UNITED STATES DEPARTMENT OF AGRICULTURE IN COOPERATION
WITH THE NATIONAL SAFETY COUNCIL





Two farm tractors were deliberately upset at the 1967 Nebraska Power and Safety Day to demonstrate the value of protective frames for tractors. Each carried a straw dummy to dramatize the results.



The unprotected tractor went first at about 10 mph. It quickly flipped completely over when a rear wheel dropped off the embankment.



The dummy was caught underneath and crushed. A real man would have been killed instantly. Many tractors overturn the same way—dropping off into a roadside, hole, or ditch.

PROTECTIVE FRAME CAN SAVE 450 LIV

Of the 1000 lives lost each year in tractor accidents, 600 are due to overturns. At least three-fourths of these might be saved by protective frames and seat belts or crush-resistant cabs.

A specially-designed steel frame now recommended for tractors will probably save the operator's life in case of overturn. This steel frame, above and to each side of the operator, will usually limit a backward or sidewise overturn to 90°. (See illustrations.)

A seat belt adds to the operator's protection by holding him firmly in the seat while the framework of steel prevents him from being crushed. With this protection, an operator could emerge unhurt, or with only minor injuries, from an accident that might otherwise have killed or severely injured him. A sunshade may be added to

TRACTOR FATALITY FACTS

- Roughly one-third of fatal farm work accidents involve tractors.
- Seven in ten of these accidents occur on the farm property.
- Two-thirds of them happen on an incline, embankment, or ramp.
- Nearly eight out of ten tractor injuries involve crushing.
- One-third of the victims are under 25 years old.
- More than three-fourths live on farms.

S FOR TRACTORS S A YEAR

protect the operator from sun and rain.

A crush-resistant cab will also give protection in an overturn. A cab can also provide the added safety and comfort factors of filtered and cooled or warmed air, and protection from exhaust fumes.

Tractor tipping demonstrations have shown how fast and easily tractors can upset and how such overturns can fatally crush operators unless they have protective frames and seatbelts.

A tractor upsetting backward at full throttle is beyond stopping after about seven-tenths of a second. This is less than the average person's reaction time. Unless the operator is thrown or can jump clear (difficult at best, unlikely after an overturn is in progress), he will probably be crushed beneath the tractor. Result: Severe injury, permanent crippling, or death.

- Seventeen out of twenty of the fatally injured were driving the tractor.
- Ninety-five percent of the operators killed have had at least 1 year's experience in tractor operation.
- Nine out of ten die before medical attention is obtained.
- Three out of four die within an hour of the accident, most within a few minutes.



A second tractor, identical to the first except for an added protective frame and seat belt, followed.



Its roll was limited. The dummy was unscathed. A real occupant probably would have been scared, but not really hurt.



The seat belt held the dummy securely within the protective frame. Such belts are a vital part of tractor overturn protection.



PROTECTIVE FRAMES ARE SAVING LIVES

In Sweden today, more than 50 percent of the tractors are equipped with protective frames or cabs. From 1959 to 1966, 35 upset accidents with frame or cab-equipped tractors were reported in detail. Only one operator was killed—he tried to jump and was fatally injured outside the tractor cab. Not one person who remained inside the protective frame or cab was killed. All tractors delivered in Sweden after June 30, 1959, have been equipped with approved protective frames. Since September 30, 1965, all tractors on farms using hired labor have had to be equipped with frames.

Similar requirements based on Sweden's success have gone into effect in Norway, Denmark, and Finland. In Great Britain, new tractors to be sold or rented after September 1, 1970, must be fitted with protective cabs or frames.

The American Society of Agricultural Engineers has issued standardized testing procedures and requirements for accepta-

ble protective frames. These are based on actual overturns conducted by member companies of the Farm and Industrial Equipment Institute.

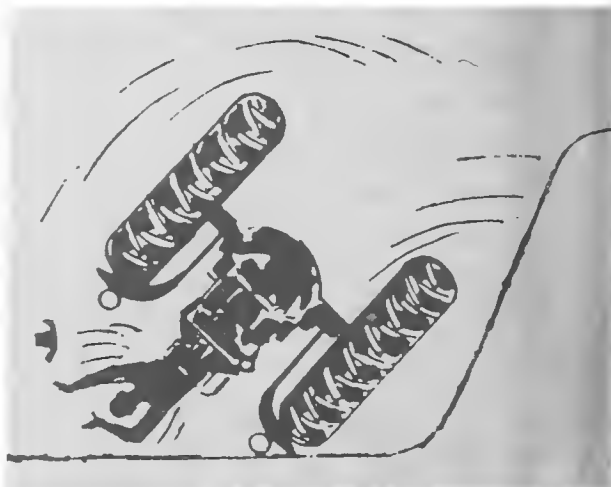
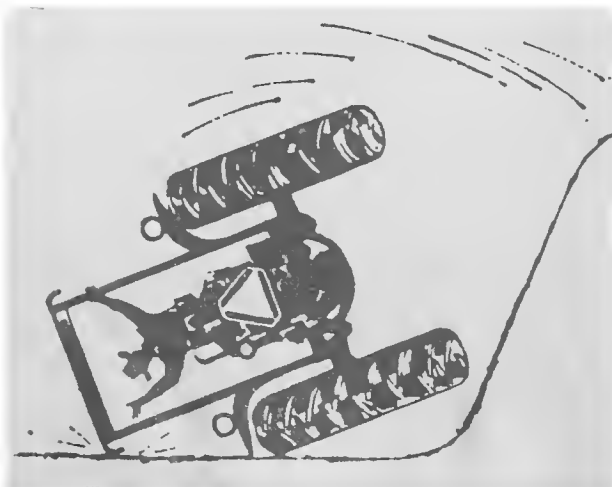
All major manufacturers are now designing and testing protective frames for their most popular new tractor models. Protective frames for some models of tractors are already on the market. Several manufacturers expect to have satisfactory protective frames for their most popular models in the near future. Protective frames for other models will be available as soon as necessary tests, redesign, and production permit.

Dealers will have information as soon as frames for their tractors become available.

COST OF PROTECTION

The cost of this protection is small in comparison to the potential savings in life, injury, medical costs, and property damage.

SAFE OR SORRY



APRIL 1968